

IN THE CLAIMS:

Please cancel claim 110 without prejudice, amend the claims and add new claims 125 to 132 as follows:

Claims 1-72 (Canceled)

73. (Currently Amended) A purified antibody or functional fragment thereof comprising a light chain (V_L) variable region sequence and a heavy chain (V_H) variable region sequence, wherein said antibody or functional fragment specifically binds to an epitope of an antigen expressed by at least one of BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), or LOU-NH91 (DSMZ Accession No. ACC 393) neoplastic cells, wherein SAM-6 antibody comprising the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:3 specifically binds to said epitope of the antigen expressed by at least one of said neoplastic cells, and ~~wherein said light chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:1, or~~ wherein said heavy chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:3.

74.-79. (Cancelled)

80. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, comprising SEQ ID NO:1 and SEQ ID NO:3.

81. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein said functional fragment comprises SEQ ID NO:1 and SEQ ID NO:3.

82.-88. (Cancelled)

89. (Withdrawn) A cell expressing a polypeptide selected from the group consisting of: said polypeptide comprising an amino acid sequence substantially identical to a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof, and wherein said polypeptide specifically binds to BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), and LOU-NH91 (DSMZ Accession No. ACC 393) cells and not to a non-neoplastic cell;

said polypeptide comprising at least one complementary-determining regions (CDR) or functional fragments thereof comprising an amino acid sequence substantially identical to an

amino acid sequence selected from the group consisting of [Ser-Gly-Asp-Lys-Leu-Gly-Asp-Lys-Tyr-Ala-Cys (CDR1) or Gln-Asp-Ser-Lys-Arg-Pro-Ser (CDR2) or Gln-Ala-Trp-Asp-Ser-Ser-Ile-Val-Val (CDR3) of SEQ ID NO:1], [Ser-Tyr-Ala-Met-His (CDR1) or Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) or Asp-Arg-Leu-Ala-Val-Ala-Gly-Lys-Thr-Phe-Asp-Tyr (CDR3) SEQ ID NO:3] and a combination thereof; and,

said polypeptide comprising an amino acid sequence substantially identical to a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof, wherein said polypeptide specifically binds to an adenocarcinoma of the lung, a squamous cell lung carcinoma, an intestinal-type gastric carcinoma, a diffuse-type gastric carcinoma, an adenocarcinoma of the colon, an adenocarcinoma of the prostate, a squamous cell carcinoma of the esophagus, an adenocarcinoma of the esophagus, an adenocarcinoma of the esophagus, a lobular carcinoma of the breast, a ductal carcinoma of the breast, an adenocarcinoma of the pancreas, an adenocarcinoma of the ovary and an adenocarcinoma of the uterus, and not to a non neoplastic cell.

90. (Withdrawn) A cell expressing a polypeptide comprising a sequence substantially identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof.

91. (Withdrawn) The cell expressing a polypeptide according to Claim 90, wherein said cell is a hybridoma.

92.-94. (Cancel)

95. (Withdrawn) An isolated nucleic acid molecule encoding a heavy or light chain variable region sequence of the antibody of claim 72.

96. (Withdrawn) The isolated nucleic acid molecule according to Claim 95, wherein said nucleic acid molecule is comprised within a vector.

97. (Withdrawn) The isolated nucleic acid molecule according to Claim 96, wherein said vector is comprised within a cell.

98.-105. (Cancelled)

106. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain (V_L) variable region sequence is at least [[95%]] 80%

identical to SEQ ID NO:1, and wherein said heavy chain (V_H) variable region sequence is at least ~~[[95%]]~~ 90% identical to SEQ ID NO:3.

107. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, comprising the functional fragment thereof.

108. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 107, wherein said functional fragment thereof is selected from the group consisting of V_H, F_v, Fab, Fab' and F(ab')₂.

109. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:1.

110. (Cancel)

111. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein the complementary-determining region (CDR) of said light chain (V_L) variable region sequence is identical to CDRs [Ser-Gly-Asp-Lys-Leu-Gly-Asp-Lys-Tyr-Ala-Cys (CDR1) and Gln-Asp-Ser-Lys-Arg-Pro-Ser (CDR2) and Gln-Ala-Trp-Asp-Ser-Ser-Ile-Val-Val (CDR3) of SEQ ID NO:1], ~~or wherein the complementary-determining region (CDR) of said heavy chain (V_H) variable region sequence is identical to CDRs [Ser-Tyr-Ala-Met-His (CDR1) and Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) and Asp-Arg-Leu-Ala-Val-Ala-Gly-Arg-Pro-Phe-Asp-Tyr (CDR3) of SEQ ID NO:3].~~

112. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof is a monoclonal antibody.

113.-114. (Cancelled)

115. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof inhibits cell proliferation of 23132/87 (DSMZ Accession No. ACC 201) cells.

116. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof induces apoptosis of at least one of BXPC-3 (ATCC Accession No. CRL-1687) and 23132/87 (DSMZ Accession No. ACC 201) cells.

117. -120. (Cancelled)

121. (Previously Presented) The purified antibody or functional fragment thereof according to Claim 73, wherein the antibody or functional fragment thereof is a monomeric or pentameric form.

122. (Previously Presented) A purified polypeptide comprising a heavy chain (V_H) variable region sequence, wherein said heavy chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:3, wherein said heavy chain (V_H) variable region sequence specifically binds to an epitope of an antigen expressed by at least one of BXPC-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), or LOU-NH91 (DSMZ Accession No. ACC 393) neoplastic cells, and wherein SAM-6 antibody comprising the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:3 specifically binds to said epitope of the antigen expressed by at least one of said neoplastic cells.

123. (Previously Presented) The purified polypeptide according to Claim 122, wherein said heavy chain (V_H) variable region sequence is at least 95% identical to SEQ ID NO:3.

124. (Previously Presented) The purified polypeptide according to Claim 122, wherein the complementary-determining region (CDR) of said heavy chain (V_H) variable region sequence is identical to CDRs [Ser-Tyr-Ala-Met-His (CDR1) and Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) and Asp-Arg-Leu-Ala-Val-Ala-Gly-Arg-Pro-Phe-Asp-Tyr (CDR3) SEQ ID NO:3].

125. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:1.

126. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain (V_L) variable region sequence is at least 80% identical to SEQ ID NO:1, or wherein said heavy chain (V_H) variable region sequence is at least 80% identical to SEQ ID NO:3.

127. (New) The purified polypeptide according to Claim 122, wherein said heavy chain (V_H) variable region sequence is at least 80% identical to SEQ ID NO:3.

128. (New) A purified antibody or functional fragment thereof comprising a light chain (V_L) variable region sequence and a heavy chain (V_H) variable region sequence, wherein said antibody or functional fragment specifically binds to an epitope of an antigen expressed by at least one of BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), or LOU-NH91 (DSMZ Accession No. ACC 393) neoplastic cells, wherein SAM-6 antibody comprising the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:3 specifically binds to said epitope of the antigen expressed by at least one of said neoplastic cells, and wherein said light chain (V_L) variable region sequence is at least 90% identical to SEQ ID NO:1, or wherein said heavy chain variable region sequence is at least 90% identical to SEQ ID NO:3.

129. (New) The purified antibody or functional fragment thereof according to Claim 127, wherein said light chain (V_L) variable region sequence is at least 95% identical to SEQ ID NO:1, or wherein said heavy chain variable region sequence is at least 95% identical to SEQ ID NO:3.

130. (New) The purified antibody or functional fragment thereof according to Claim 127, wherein said light chain (V_L) variable region sequence is at least 90% identical to SEQ ID NO:1, and wherein said heavy chain variable region sequence is at least 90% identical to SEQ ID NO:3.

131. (New) A purified polypeptide comprising a heavy chain (V_H) variable region sequence, wherein said heavy chain variable region sequence is at least 90% identical to SEQ ID NO:3, wherein said heavy chain (V_H) variable region sequence specifically binds to an epitope of an antigen expressed by at least one of BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), or LOU-NH91 (DSMZ Accession No. ACC 393) neoplastic cells, and wherein SAM-6 antibody comprising the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:3 specifically binds to said epitope of the antigen expressed by at least one of said neoplastic cells.

132. (New) The purified polypeptide according to Claim 131, wherein said heavy chain (V_H) variable region sequence is at least 95% identical to SEQ ID NO:3.